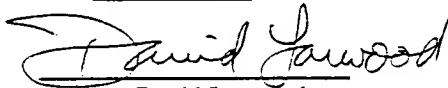


ABSTRACT

Microelectronic contact structures (260, 360, 460) are lithographically defined and fabricated by applying a masking layer (220, 320, 420) on a surface of a substrate (202, 302, 402) such as an electronic component, creating an opening (222, 322, 422) in the masking layer, depositing a conductive trace of a seed layer (250, 350, 450) onto the masking layer and into the openings, and building up a mass of conductive material on the conductive trace. The sidewalls of the opening can be sloped (tapered). The conductive trace can be patterned by depositing material through a stencil or shadow mask (240, 340, 440). A protruding feature (230, 430) may be disposed on the masking layer so that a tip end (264, 364, 464) of the contact structure acquires a topography. All of these elements can be constructed as a group to form a plurality of precisely positioned resilient contact structures.

Certificate of Mailing under 37 CFR 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service, Express Mail label number EI-622-082-966-US under 37 CFR 1.10 and is addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on February 26, 1998.


David Larwood

February 26, 1998
Signed